

The Hawaii-based Longline Logbook Summary Report January-March 2007¹

Pacific Islands Fisheries Science Center
Fisheries Monitoring and Analysis Program

All Federal longline logbook data for fishing trips completed in the first quarter of 2007 (Q1-2007) by Hawaii-based longline vessels have been received and processed and are summarized in this report (Table 1). The report includes most data from trips that began late in the first quarter and continued into the second quarter of 2007, but data from such trips may still be forthcoming; hence, this report should be considered preliminary. Updates will be made available in the online edition of the report at <http://www.pifsc.noaa.gov/fmsd/reports.php>.

The shallow-set fishery targeting swordfish was reopened on January 1, 2007. The fishery had been closed since March 20, 2006 to protect sea turtles. Under Resolution C-06-02 of the Inter-American Tropical Tuna Commission, the annual quota for U.S. longline catches of bigeye tuna in the Pacific Ocean east of 150° W longitude was revised from 150 metric tons during 2004-2006 to 500 metric tons in 2007. The annual catch limit is intended to help conserve bigeye tuna in the eastern Pacific Ocean.

During Q1-2007, 121 longline vessels were active, 5 more than in Q1-2006 (Fig. 1). They recorded 373 trips (31 fewer than in Q1-2006), including 315 using deep-set gear to target tuna and 58 using shallow-set gear to target swordfish (Fig. 2). They deployed about 8,083,000 hooks, 260,000 more than in Q1-2006 (Fig. 3). They fished mainly outside the U.S. Exclusive Economic Zone (EEZ) (58% of total hooks set) followed by the EEZs of the main Hawaiian Islands (MHI) (24%), the Northwestern Hawaiian Islands (NWHI) (10%), and the Pacific Remote Island Areas (PRIA) (8%).

In Q1-2007 the Hawaii longline fleet caught a total of 30,549 bigeye tuna (Fig. 4); 58% were caught outside the U.S. EEZ, 19% in the MHI EEZ, and 13% in the NWHI EEZ. The bigeye tuna CPUE on tuna-targeted trips was 4.1 fish per 1000 hooks (Fig. 5). The total albacore catch and CPUE on tuna-targeted trips were 4,204 fish and 0.4 fish per 1000 hooks, respectively (Figs. 6-7). The total yellowfin tuna catch (4,405 fish) and CPUE on tuna-targeted trips (0.5 fish per 1000 hooks) were substantially lower than in Q1-2006 (Figs. 8-9). During Q1-2007, the total swordfish catch (13,633 fish) was similar to the swordfish catch in Q1-2006 (Fig. 10) and the swordfish CPUE on swordfish-targeted trips (16.1 fish per 1000 hooks; Fig. 11) was lower. The total Q1-2007 striped marlin catch (3,085 fish) and CPUE on tuna-targeted trips (0.4 fish per 1000 hooks) were slightly higher than in Q1-2006 (Figs. 12-13). The total blue marlin catch and CPUE on tuna-targeted trips were 496 fish and 0.1 fish per 1000 hooks, respectively (Figs. 14-15). A total of 21,311 sharks were caught in Q1-2007 of which 2% (497) were kept. The catch of blue shark (19,023 fish) comprised 89% of the total shark catch (Fig 16). Blue shark CPUE on shallow-set swordfish-targeted trips was 15.0 fish per 1000 hooks (Fig. 17).

Revised graphs of annual catch and fishing effort during 1991-2006 are presented in Figs. A1-A7. Additional quarterly and annual statistics for the Hawaii longline fishery are included in the online edition of the report.

¹ PIFSC Data Report DR-07-003
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Table 1. Quarterly summary report of fish catch statistics for U.S. longline vessels landing in Hawaii as derived from NMFS Western Pacific Daily Longline Fishing Log records. [PIFSC IMS, Longline Logbook Data, 5/15/2007 11:20:18AM]

Report Coverage					Number of vessels active	121
Time Period	1st Quarter 2007				Number of trips	373
Fishing Area	All Areas				Number of sets	4,333
Trip Types	All Trip Types				Number of hooks set	8,082,695

Pelagic Management Unit Species (PMUS)	Number Caught	Number Kept	Number Released	CPUE - Number Caught per 1000 hooks
Billfishes				
Blue marlin	496	494	2	0.06
Striped marlin	3,085	3,046	39	0.38
Shortbill spearfish	2,082	2,068	14	0.26
Swordfish	13,633	12,429	1,204	1.69
Other billfishes	39	38	1	0.00
Total	19,335	18,075	1,260	2.39
Sharks				
Blue shark	19,023	19	19,004	2.35
Mako sharks	1,115	389	726	0.14
Thresher sharks	798	58	740	0.10
Oceanic whitetip shark	211	23	188	0.03
Silky shark	2		2	0.00
Other sharks	162	8	154	0.02
Total	21,311	497	20,814	2.64
Tunas				
Albacore	4,204	3,798	406	0.52
Bigeye tuna	30,549	29,527	1,022	3.78
Yellowfin	4,405	4,245	160	0.54
Skipjack tuna	1,469	1,402	67	0.18
Other tunas	13	11	2	0.00
Total	40,640	38,983	1,657	5.03
Other PMUS				
Mahimahi	12,214	12,023	191	1.51
Moonfish	2,366	2,347	19	0.29
Wahoo	1,803	1,793	10	0.22
Oilfish	7,795	7,436	359	0.96
Pomfret	7,954	7,915	39	0.98
Total	32,132	31,514	618	3.98
Total PMUS	113,418	89,069	24,349	14.03
Total Non-PMUS	1,096	112	984	0.14
Total All Species	114,514	89,181	25,333	14.17

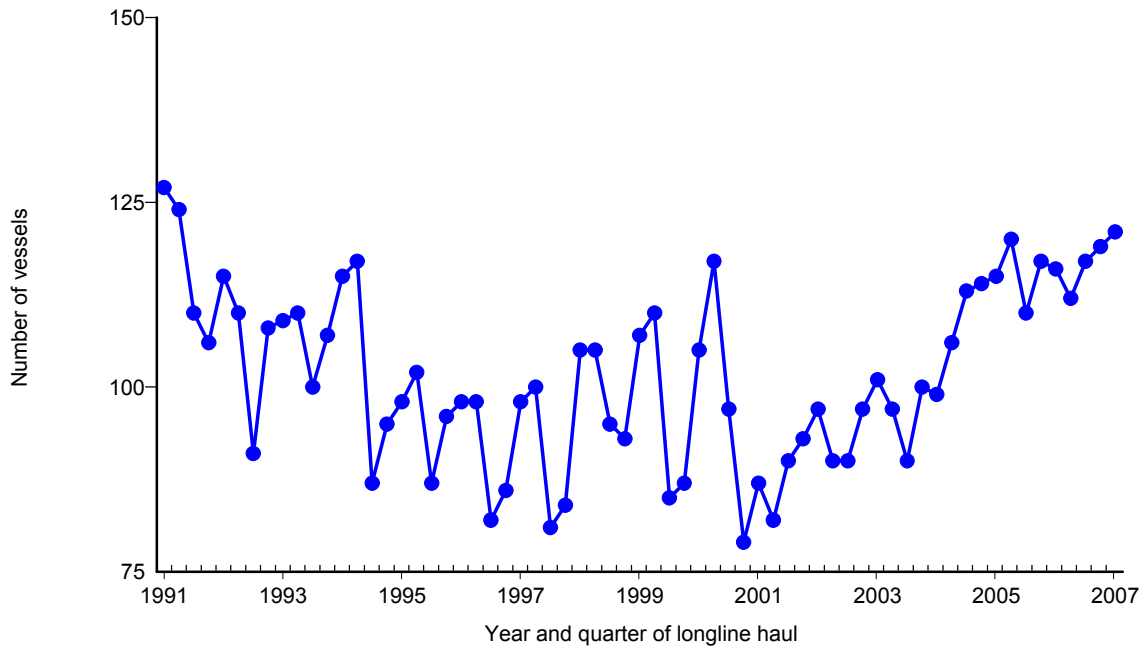


Figure 1. Number of active longline vessels based and landing in Hawaii, by quarter, 1991-2007. [PIFSC IMS, Longline Logbook Data, 5/15/2007 11:24:10AM]

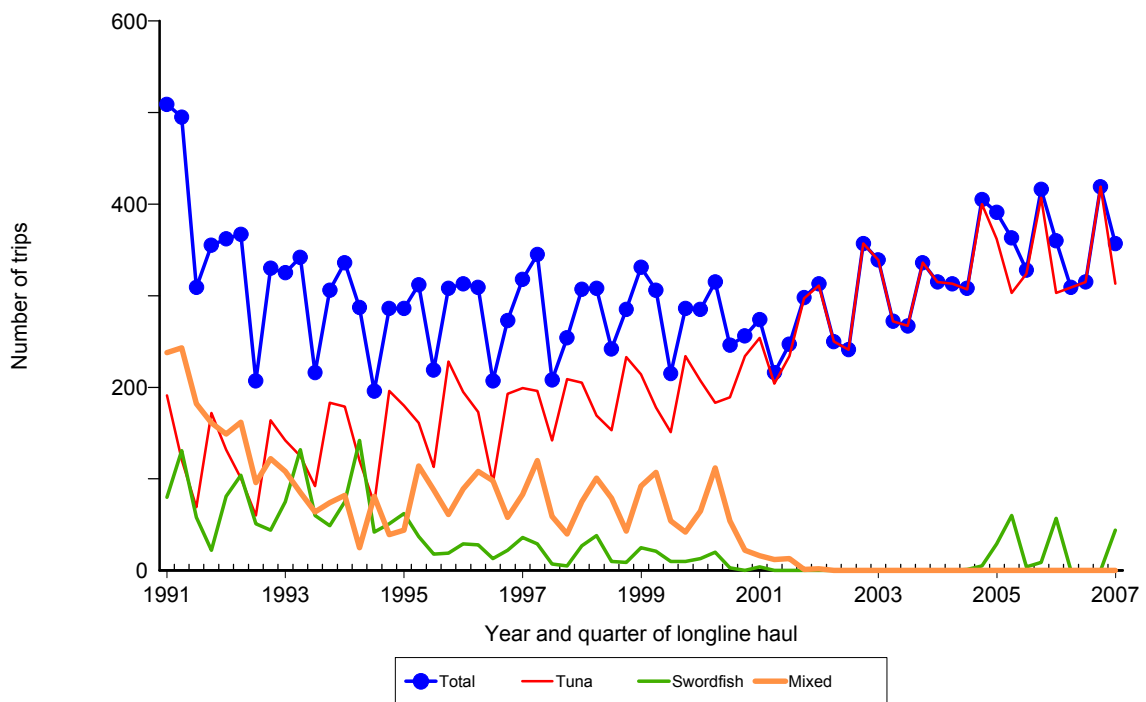


Figure 2. Number of fishing trips by longline vessels based and landing in Hawaii, by quarter and trip type, 1991-2007. [PIFSC IMS, Longline Logbook Data, 5/15/2007 11:24:10AM]

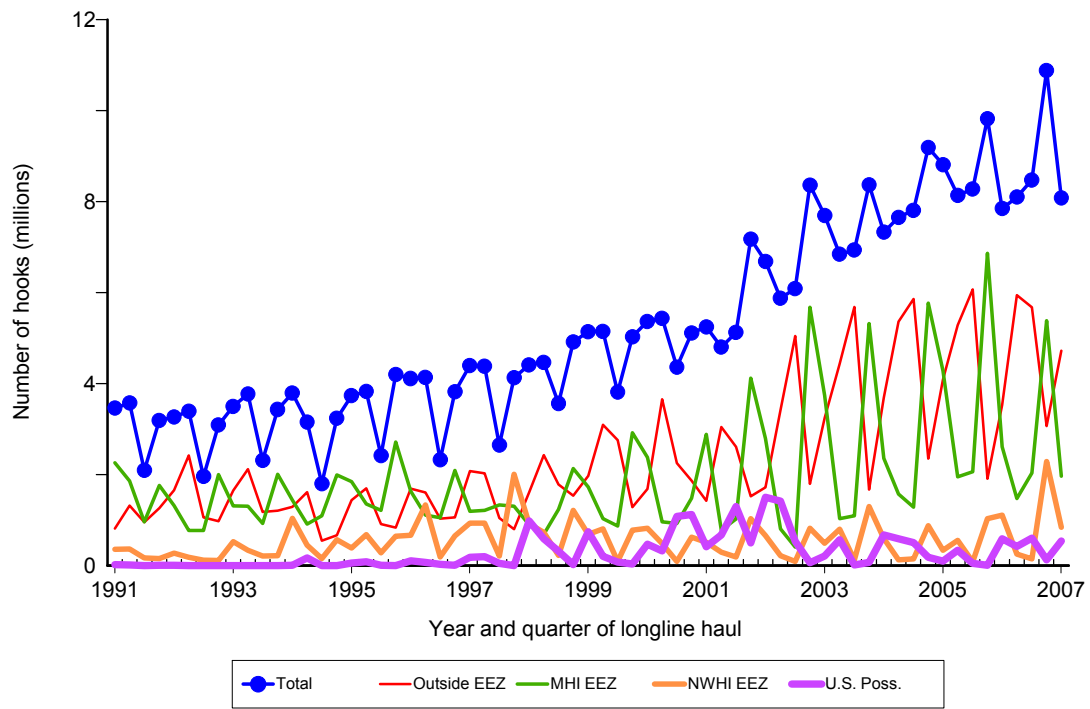


Figure 3. Number of hooks set by longline vessels based and landing in Hawaii, by quarter and fishing area, 1991-2007. [PIFSC IMS, Longline Logbook Data, 5/15/2007 11:24:21AM]

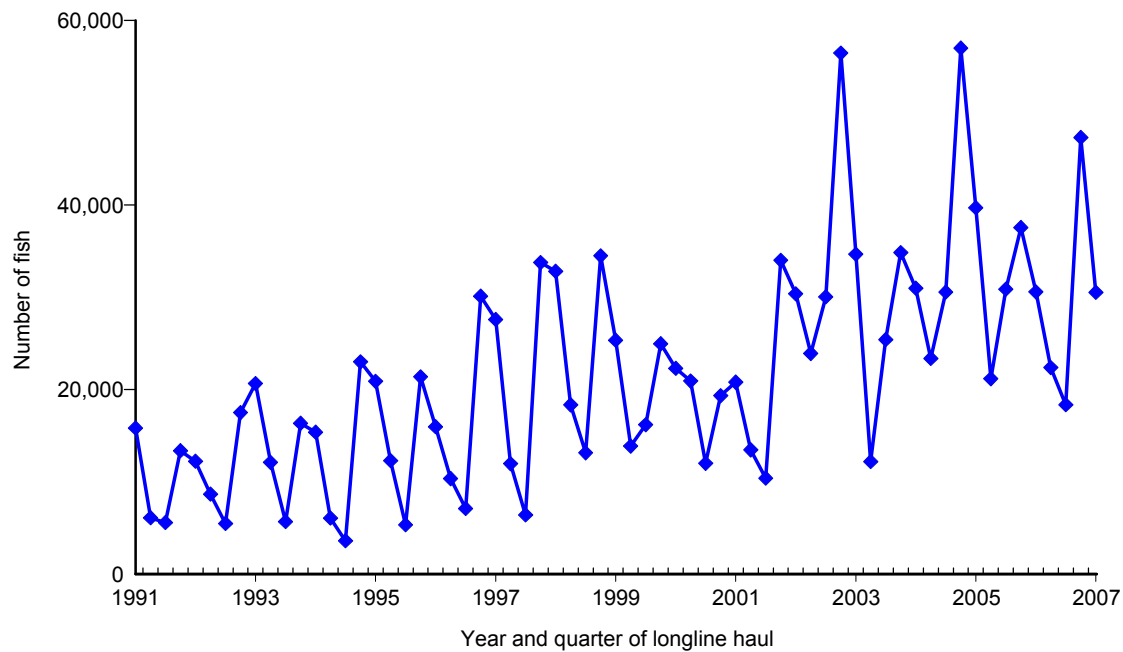


Figure 4. Quarterly catch of bigeye tuna by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 5/15/2007 11:24:50AM]

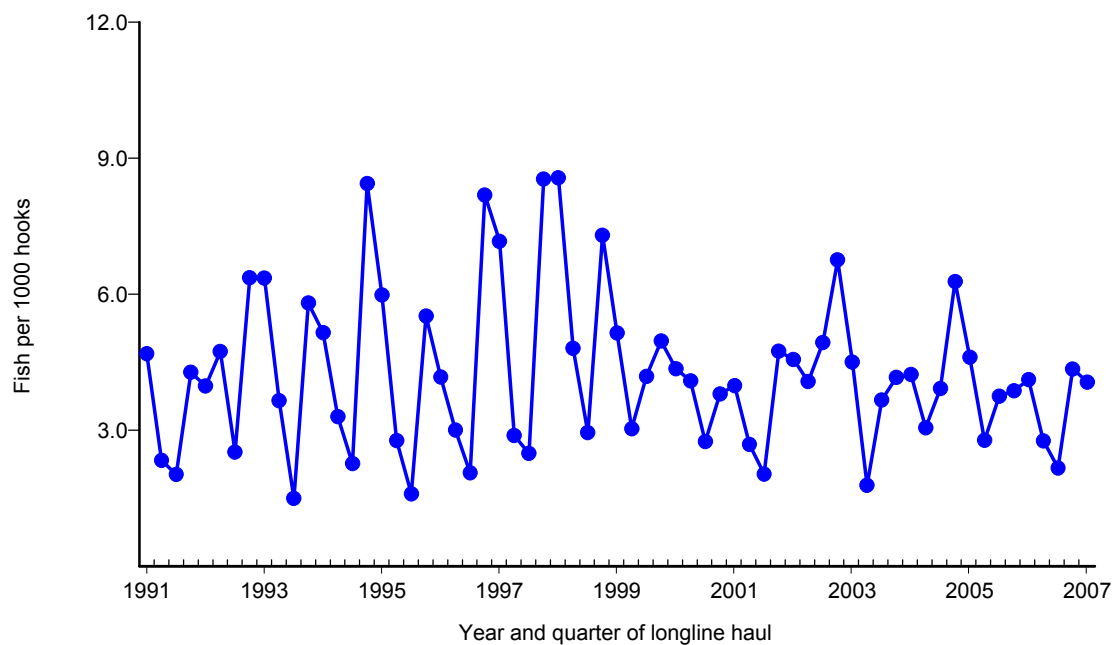


Figure 5. Quarterly CPUE of bigeye tuna (fish per 1000 hooks) on tuna trips by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 5/15/2007 11:24:50AM]

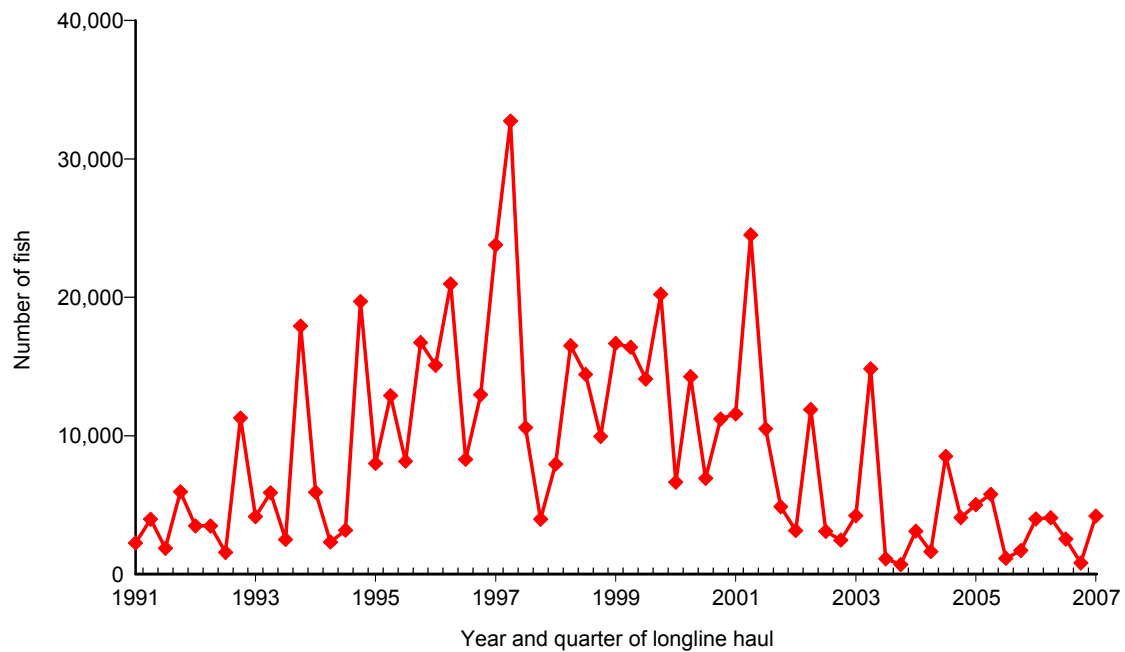


Figure 6. Quarterly catch of albacore by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 5/15/2007 11:25:25AM]

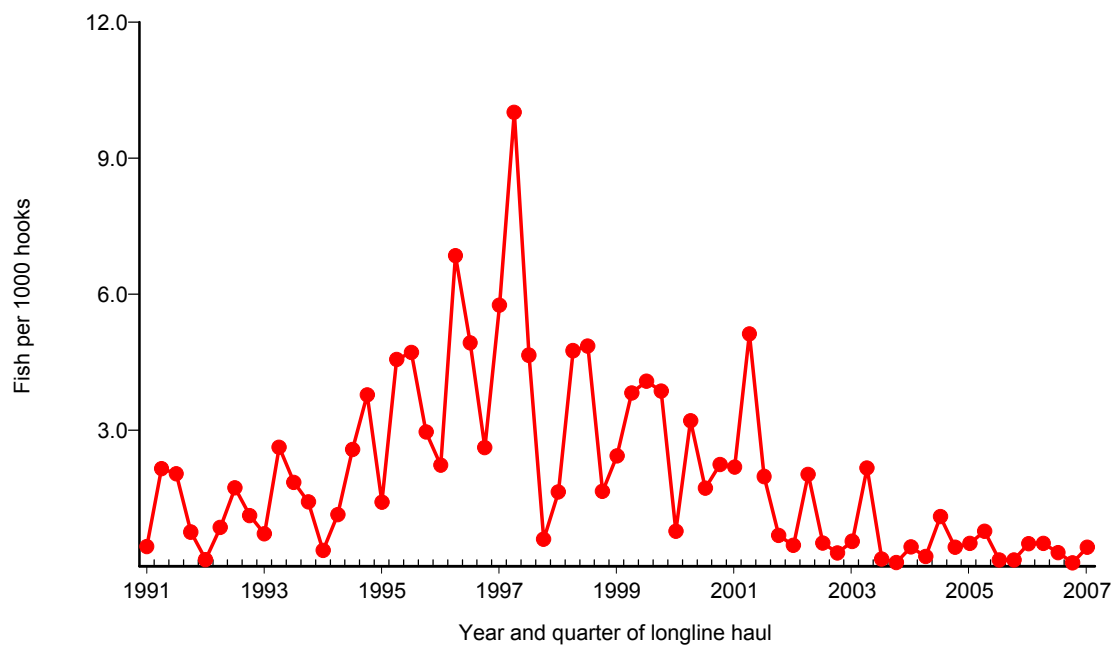


Figure 7. Quarterly CPUE of albacore (fish per 1000 hooks) on tuna trips by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 5/15/2007 11:25:25AM]

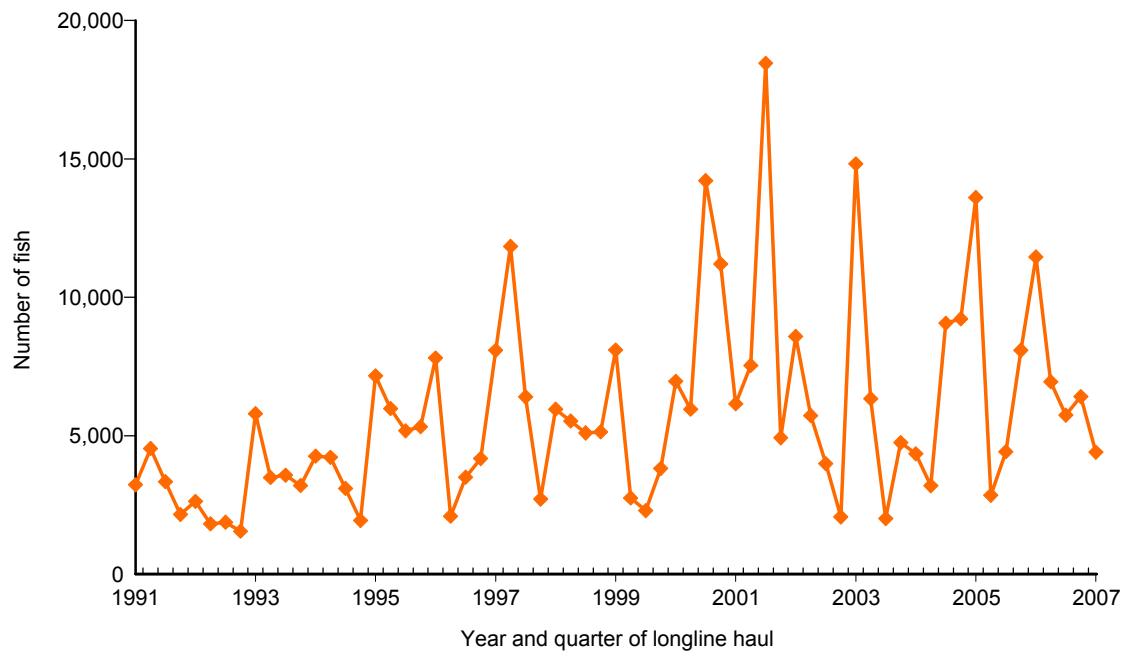


Figure 8. Quarterly catch of yellowfin tuna by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 5/15/2007 11:25:58AM]

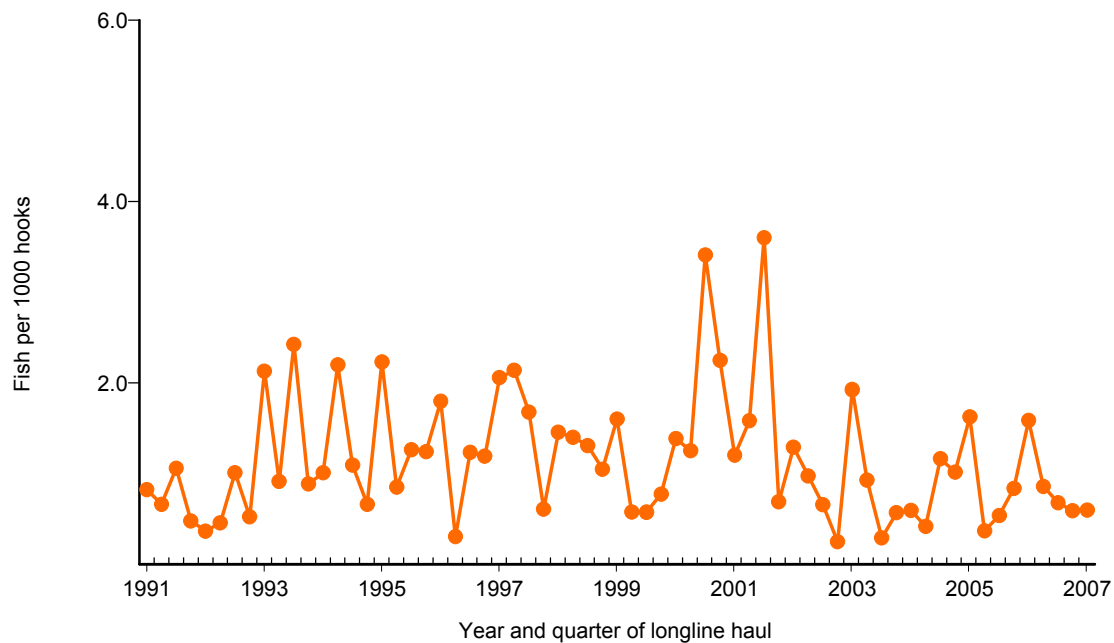


Figure 9. Quarterly CPUE of yellowfin tuna (fish per 1000 hooks) on tuna trips by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 5/15/2007 11:25:58AM]

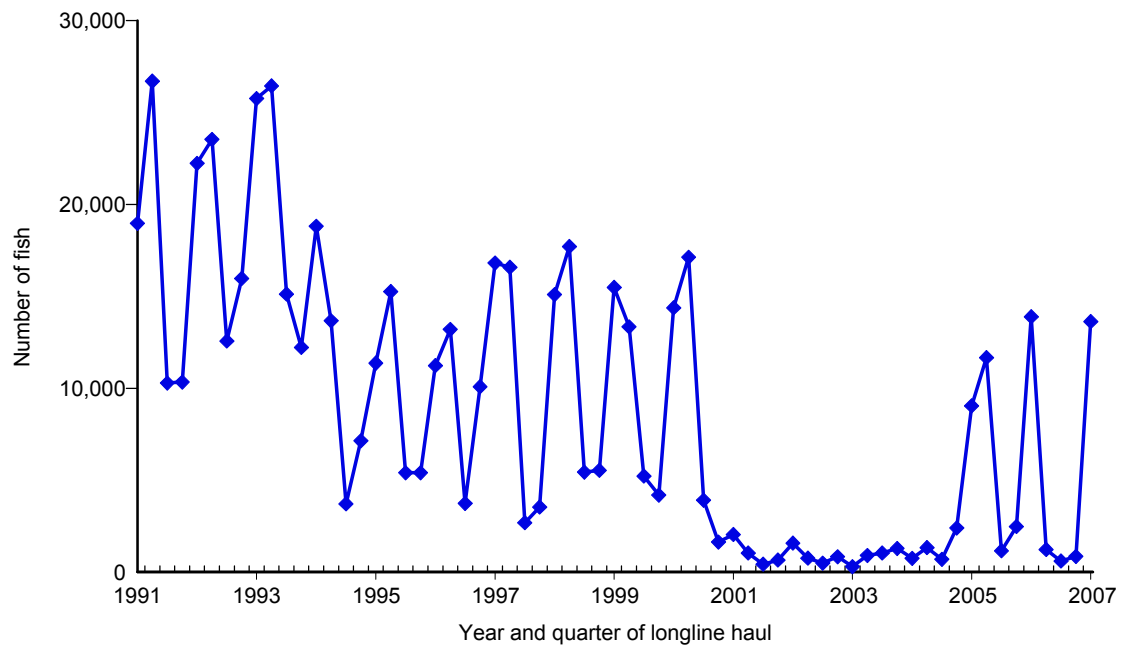


Figure 10. Quarterly catch of swordfish by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 5/15/2007 11:26:32AM]

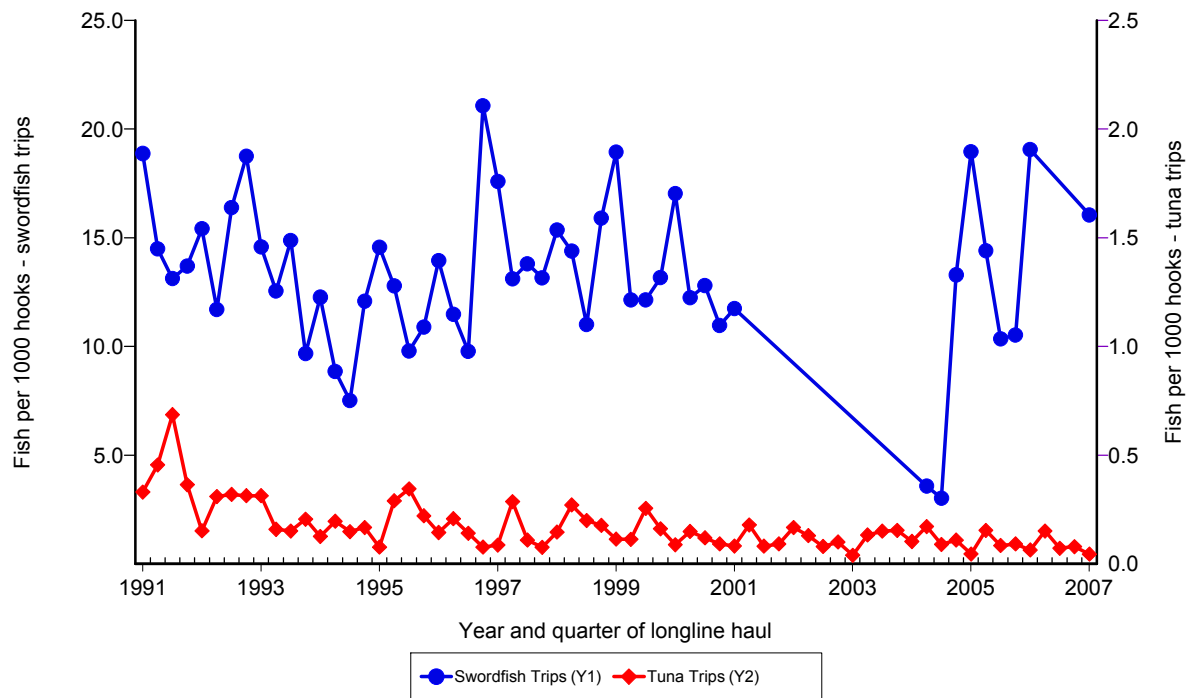


Figure 11. Quarterly CPUE of swordfish (fish per 1000 hooks) on swordfish trips and tuna trips by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 5/15/2007 11:26:32AM]

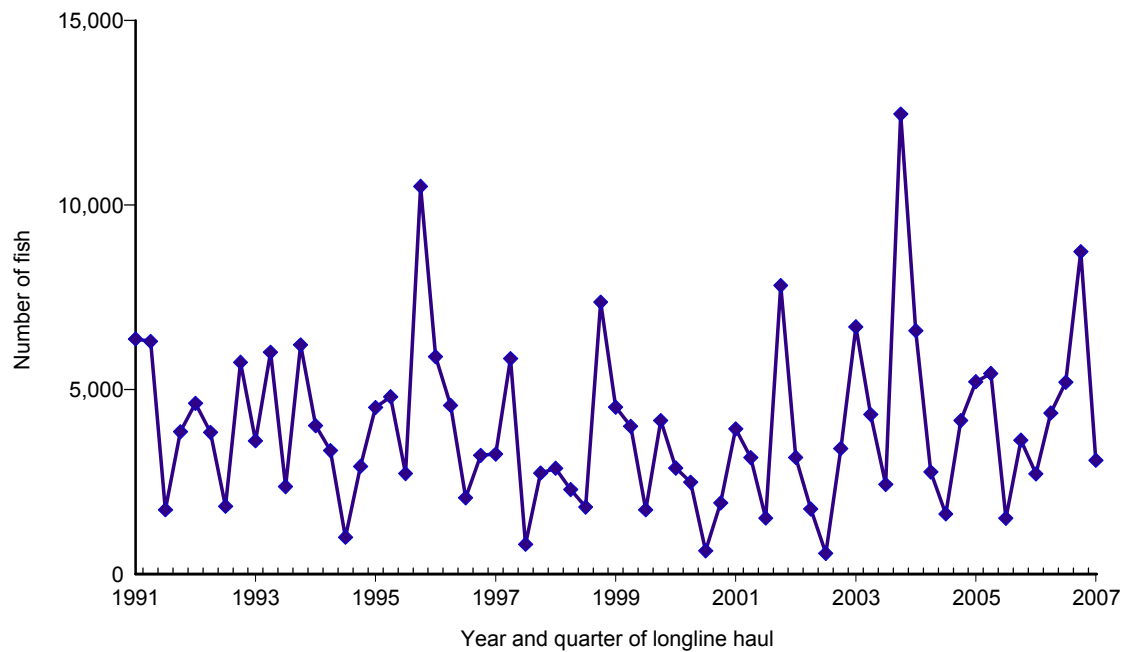


Figure 12. Quarterly catch of striped marlin by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 5/15/2007 11:27:05AM]

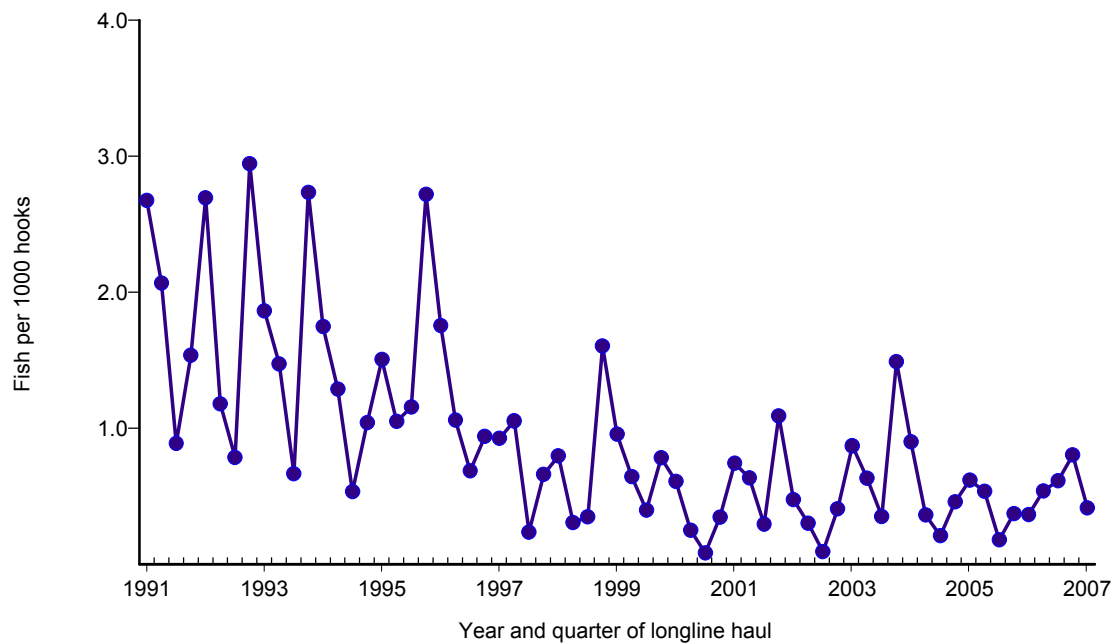


Figure 13. Quarterly CPUE of striped marlin (fish per 1000 hooks) on tuna trips by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 5/15/2007 11:27:05AM]

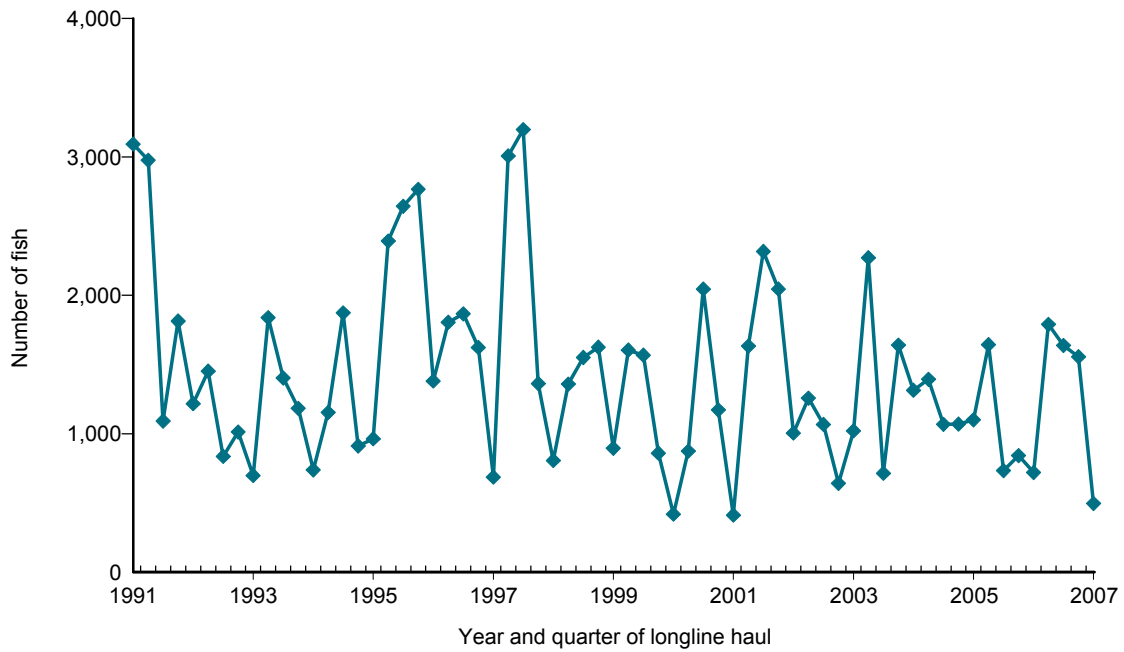


Figure 14. Quarterly catch of blue marlin by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 5/15/2007 11:27:38AM]

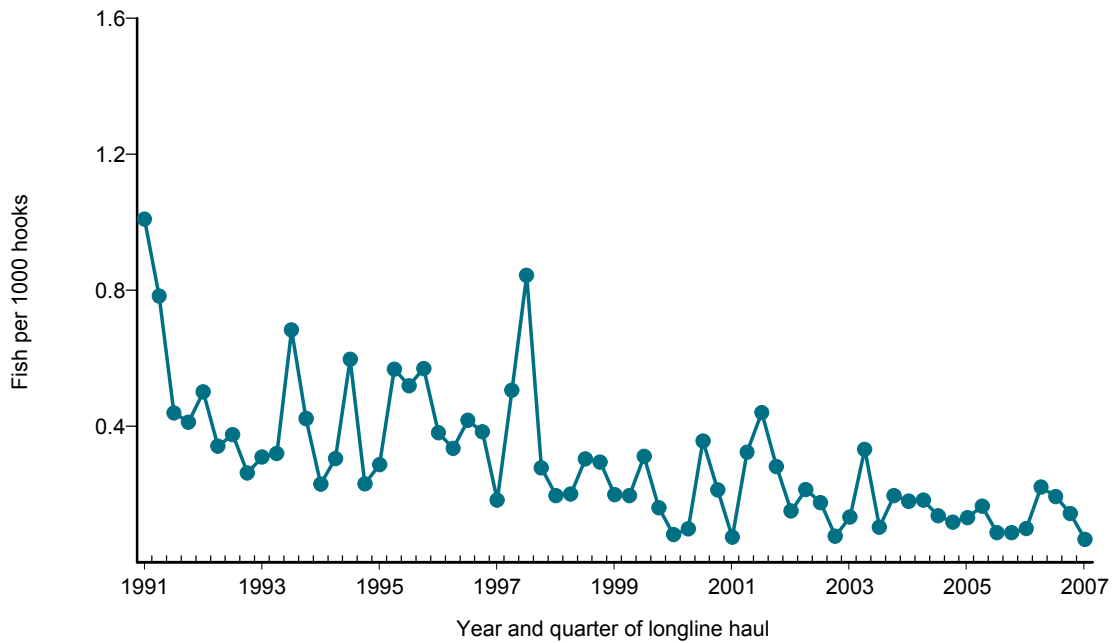


Figure 15. Quarterly CPUE of blue marlin (fish per 1000 hooks) on tuna trips by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 5/15/2007 11:27:38AM]

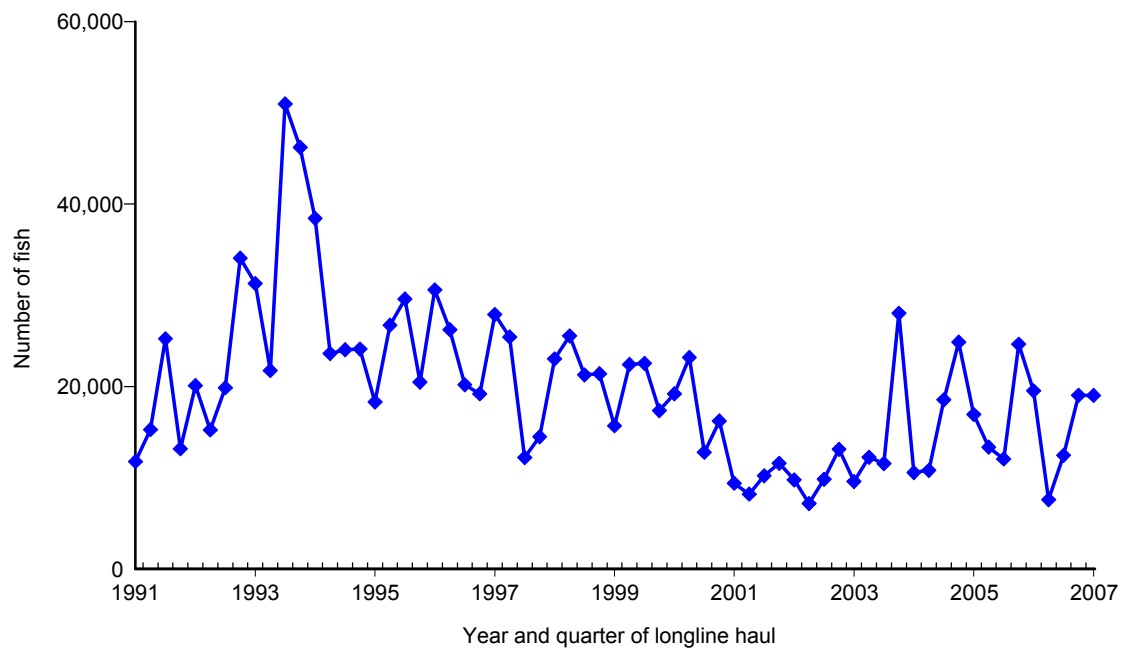


Figure 16. Quarterly catch of blue shark by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 5/15/2007 11:28:11AM]

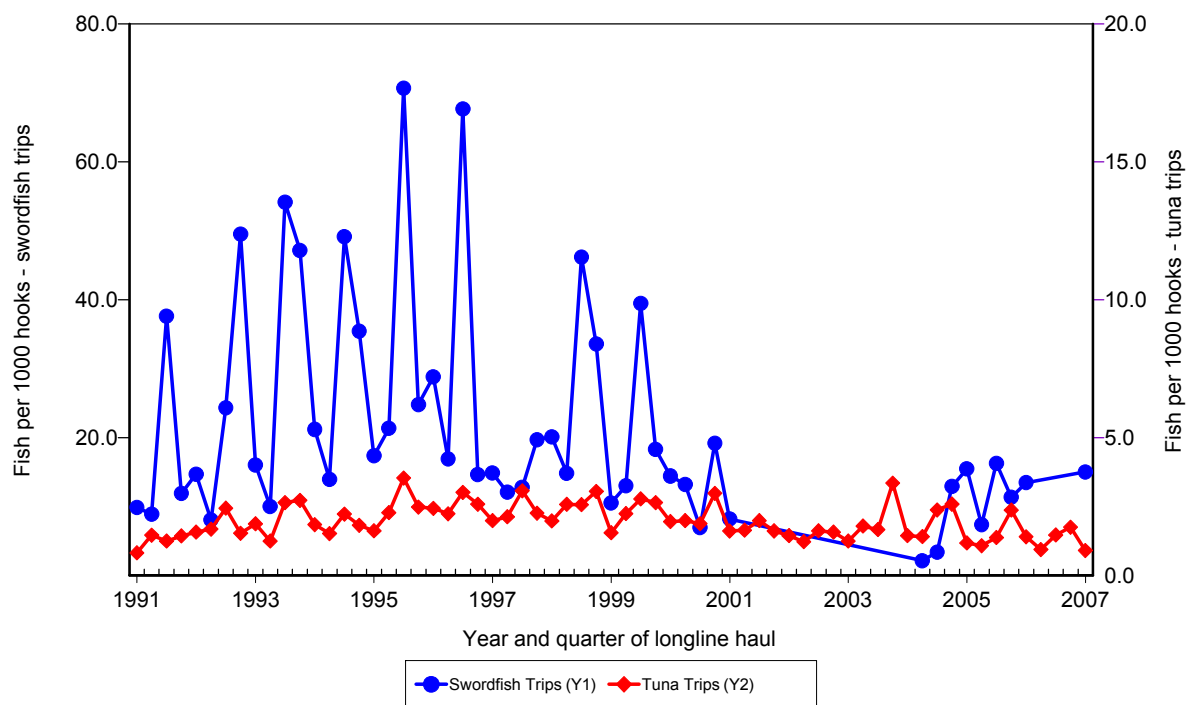


Figure 17. Quarterly CPUE of blue shark (fish per 1000 hooks) on swordfish trips and tuna trips by longline vessels based and landing in Hawaii, 1991-2007. [PIFSC IMS, Longline Logbook Data, 5/15/2007 11:28:11AM]

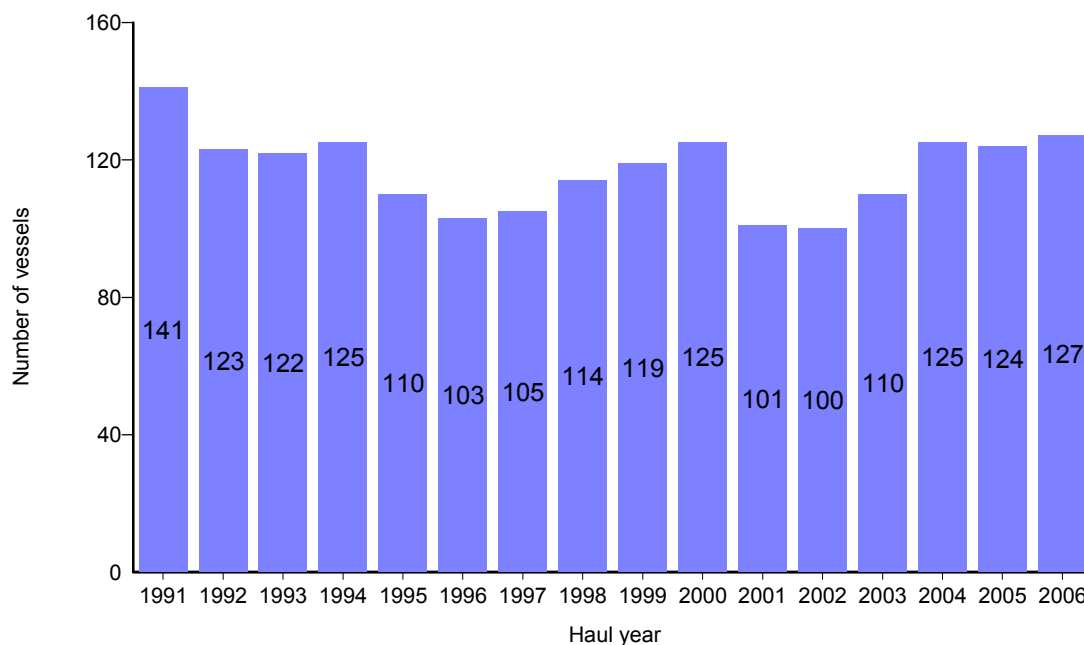


Figure A1. Number of active longline vessels based and landing in Hawaii, by year, 1991-2006. [PIFSC IMS, Longline Logbook Data, 5/15/2007 11:31:00AM]

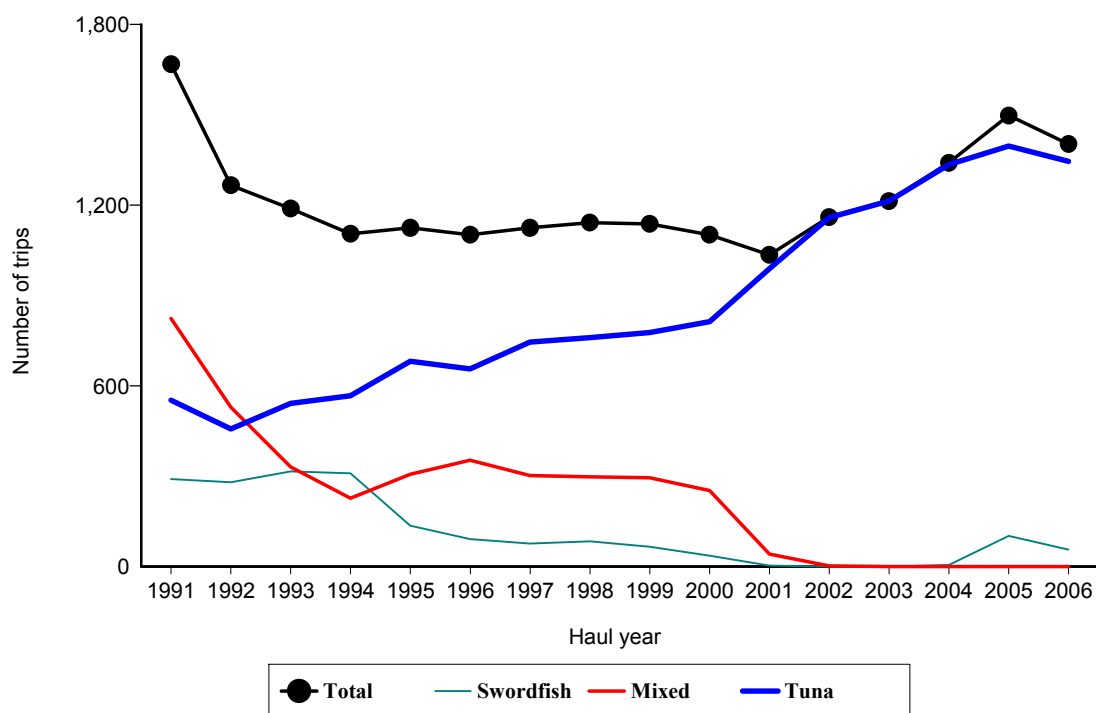


Figure A2. Number of fishing trips by longline vessels based and landing in Hawaii, by year and trip type, 1991-2006. [PIFSC IMS, Longline Logbook Data, 5/15/2007 11:31:00AM]

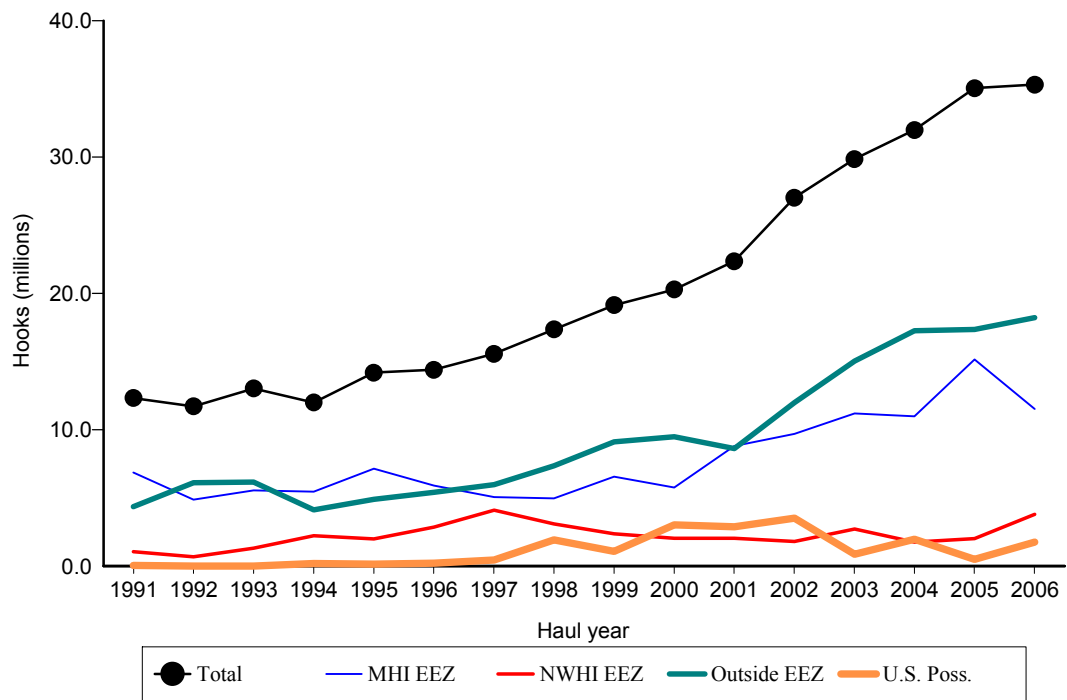


Figure A3. Number of hooks set by longline vessels based and landing in Hawaii, by year and fishing area, 1991-2006. [PIFSC IMS, Longline Logbook Data, 5/15/2007 11:31:03AM]

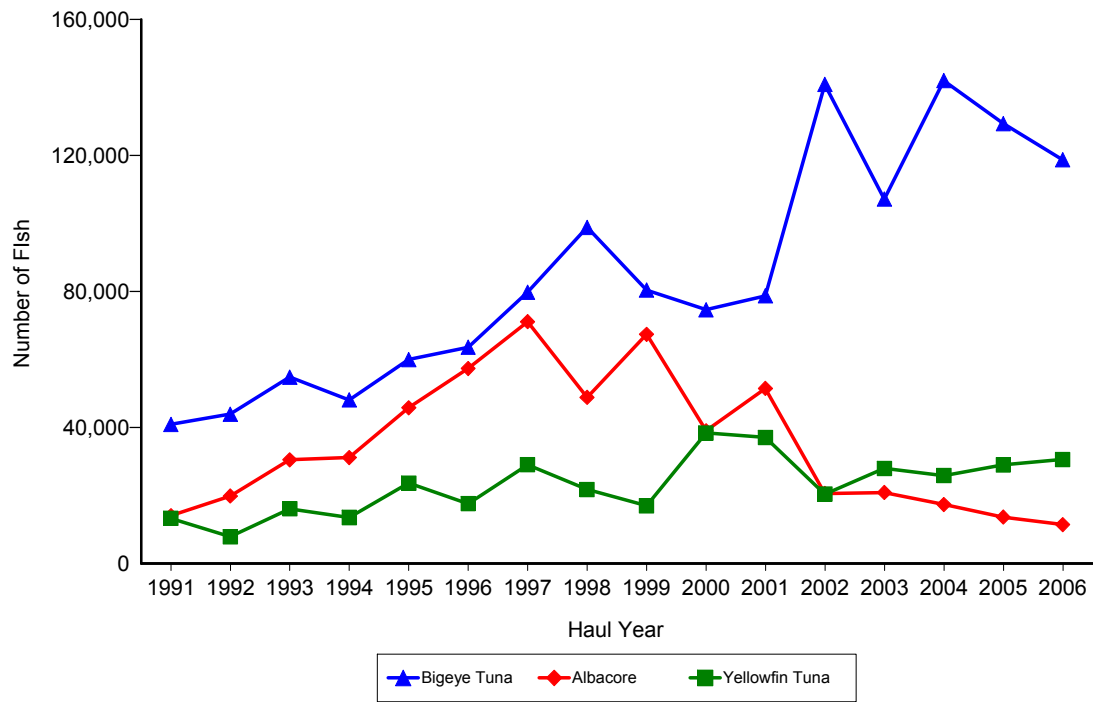


Figure A4. Annual catch of albacore, bigeye tuna, and yellowfin tuna by longline vessels based and landing in Hawaii, 1991-2006. 5/15/2007 11:31:34AM]

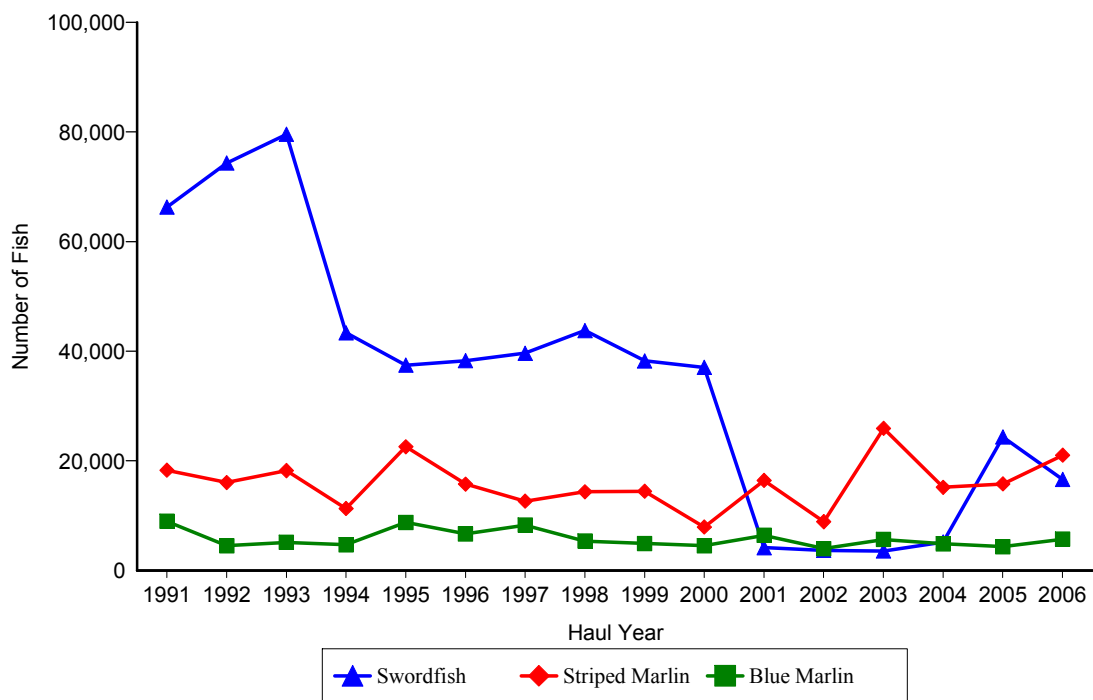


Figure A5. Annual catch of blue marlin, striped marlin, and swordfish by longline vessels based and landing in Hawaii, 1991-2006. [PIFSC IMS, Longline Logbook Data, 5/15/2007 11:31:34AM]

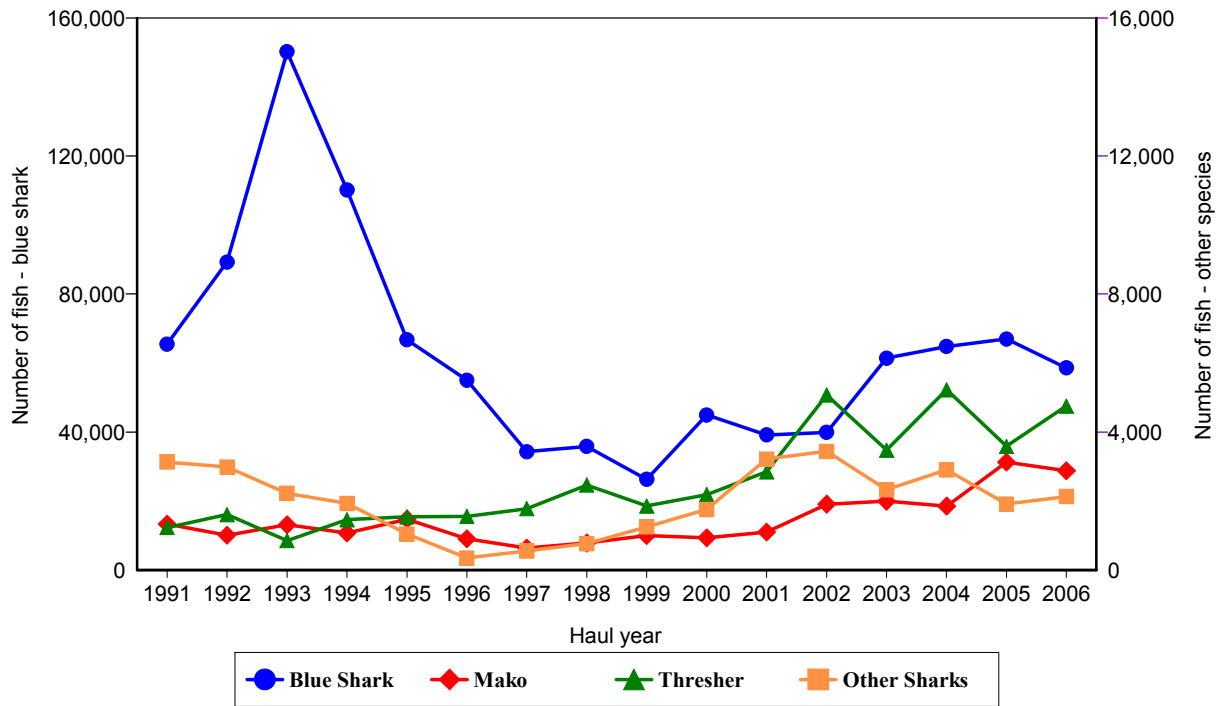


Figure A6. Annual catch of blue shark, mako shark, thresher shark, and other sharks by longline vessels based and landing in Hawaii, 1991-2006. [PIFSC IMS, Longline Logbook Data, 5/15/2007 11:31:34AM]

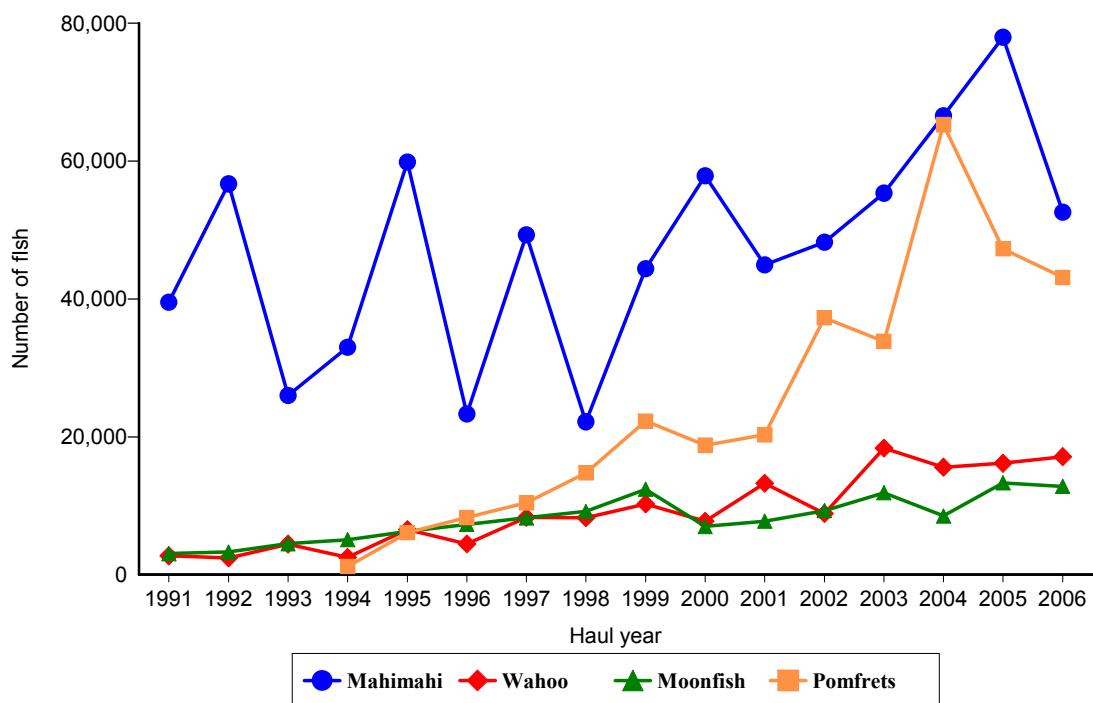


Figure A7. Annual catch of mahimahi, moonfish, pomfret, and wahoo by longline vessels based and landing in Hawaii, 1991-2006. [PIFSC IMS, Longline Logbook Data, 5/15/2007 11:31:34AM]